

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/AU2004/001429

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: A61K 31/7016, 31/7032, 39/002, 39/02, 39/12, 39/35, 35/12; A61P 37/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
DWPI, MEDLINE: lectin, calnexin, galectin, modified citrus pectin, lactulose, lactosucrose, lactitol, lactobionic acid, polylactosamine, +galactose, +lacroside, +glucopyranoside, vaccine, immunity, immunogen, antigen, APC.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2000/063251 A1 (26 October 2000). KATHOLIEKE UNIVERSITEIT NUMEGEN. See the whole document, particularly page 15 lines 3-26, and claims 7-10 and 16.	1-54
X	WO 2002/050119 A2 (27 June 2002). STICHTING KATHOLIEKE UNIVERSITEIT. See the whole document, particularly page 5 line 15 – page 6 line 37, and claims 9-12 and 18-21.	1-54
P, X	WO 2004/041292 A2 (21 May 2004). VERENIGING VOOR CHRISTELIJK WETENSCHAPPELIJK ONDERWIJS. See the whole document, particularly page 18 line 28 – page 22 line 2, and claim 9.	1-54
A	Perillo NL, Pace KE, Seilhamer JJ, Baum LG. Apoptosis of T cells mediated by galectin-1. Nature. 1995 Dec 14;378(6558):736-9. The whole document.	1-54

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
5 January 2005

Date of mailing of the international search report  
12 JAN 2005

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Lanteri M, Giordanengo V, Hiraoka N, Fuzibet JG, Auberger P, Fukuda M, Baum LG, Lefebvre JC. Altered T cell surface glycosylation in HIV-1 infection results in increased susceptibility to galectin-1-induced cell death. Glycobiology. 2003 Dec;13(12):909-18. Epub 2003 Aug 18. The whole document.	1-54
A	Rabinovich GA, Rubinstein N, Fainboim L. Unlocking the secrets of galectins: a challenge at the frontier of glyco-immunology. J Leukoc Biol. 2002 May;71(5):741-52. Review. The whole document.	1-54
T	Fukumori T, Takenaka Y, Yoshii T, Kim HR, Hogan V, Inohara H, Kagawa S, Raz A. CD29 and CD7 mediate galectin-3-induced type II T-cell apoptosis. Cancer Res. 2003 Dec 1;63(23):8302-11. The whole document.	1-54

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**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1 (in part)  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
Claim 1 relates to an extraordinary large number of possible compositions due to the broad nature of claiming. The claim was searched on the basis and support of the compositions provided in the examples, and the appended claims.
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Information on patent family members

International application No.

PCT/AU2004/001429

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
WO 0063251		AU 41526/00	CA 2330231	EP 1046651	
		EP 1086137	NZ 508723		
WO 0250119		AU 33299/02	CA 2431990	EP 1339830	
		US 2004091481			
WO 2004041292		EP 1417965			
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					
END OF ANNEX					